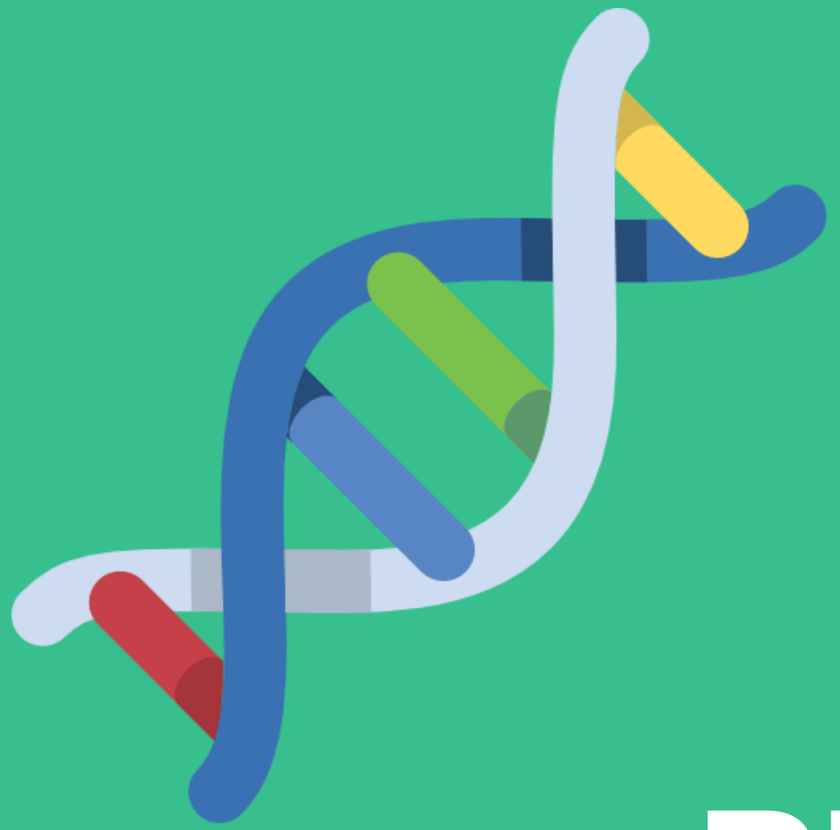
GROUP 2

VARIANT CLASSIFICATION



PROJECT 2

Member Group

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  A21EC0009
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  A21EC0131

Introduction

Our project will be focused on the Fourth Industrial Revolution technology, which is machine learning

The machine learning that we choose is tertiary analysis.

Tertiary analysis in bioinformatics refers to the application of advanced computer to analyze sequencing results retrieved from raw genetic data.

AWS speeds up the study of enormous genomics data by combining machine learning and supercomputing

This project provides a model that can predict whether a variant has conflicting classifications

Problem

Create a machine-learning model based on tertiary analysis to predict if a variant has a conflicting classification.

Researchers take too much time looking for the conflict in the classification of the genomic variant.

Determine whether a DNA variant causes disease

DEMAND:

- Utilize tertiary analysis to classify variants
- High performance in multiple genes and different health conditions.

Solution

Develop a low fidelity machine learning prototype

Use Amazon Web Service (AWS)

Use the services provided by AWS

AWS gives many benefits to run genomics analysis

Predict the existence of a conflicting categorisation for a variant

Team Working

-gathering ideas-

Discussion mediums: Whatsapp & Google Meet

Share informations

Nani

Vetted Technology | AWS Solutions Library

aws.amazon.com

https://aws.amazon.com/solutions/

AstraZeneca Case Study

Using AWS, biopharmaceutical company AstraZeneca built a cloud-based, efficient, scalable solution that processes genomics sequencing data quickly.

aws.amazon.com

https://aws.amazon.com/solutions/case-studies/astrazeneca/?did=cr_card&trk=cr_card

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Nani

Vetted Technology | AWS Solutions Library

aws.amazon.com

https://aws.amazon.com/solutions/

2:02 PM

Genomics Tertiary Analysis and Machine Learning Using Amazon SageMaker | Implementations | AWS Solutions

Create a platform in the AWS Cloud to build machine learning models on

aws.amazon.com

https://aws.amazon.com/solutions/implementations/genomics-tertiary-analysis-and-machine-learning-using-amazon-sagemaker/

10:41 PM

UTM-Kamilah

Genomics in the Cloud | Healthcare & Life Sciences | Amazon Web Services

AWS enables genomic organizations to stay agile, scale their business,

aws.amazon.com

https://aws.amazon.com/health/genomics/

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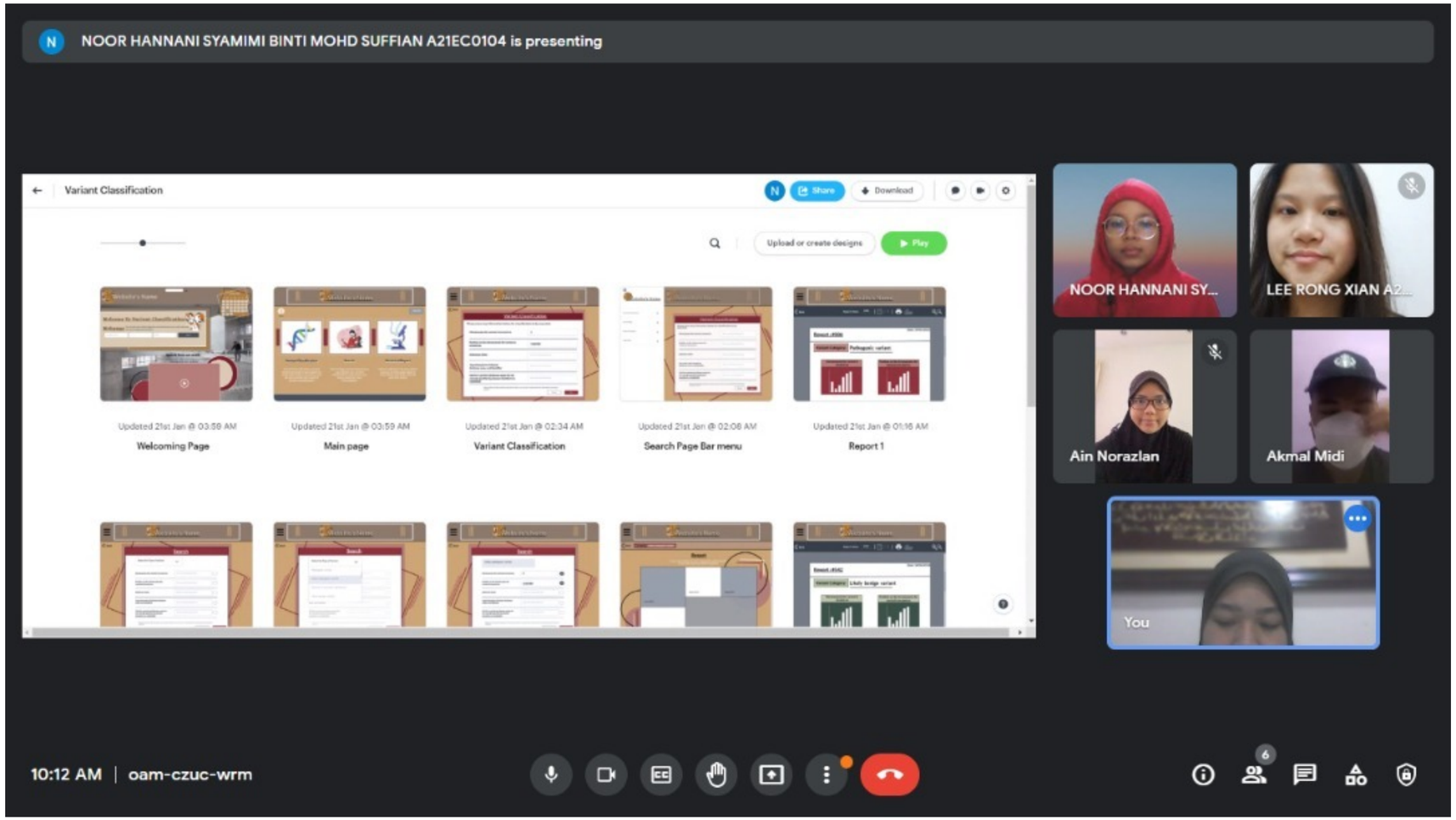
Discussion mediums: Whatsapp & Google Meet

Divide tasks

Discussion mediums: Whatsapp & Google Meet

Meeting



-To make sure everyone understands and clear what they are doing

Discussion mediums: Whatsapp & Google Meet

Set the deadline for specific tasks

2. Detail steps and descriptions related to the project e.g use the video, image, and log journal, team progress, brainstorm idea, and others.
-submit by Thursday before 9.30pm (rongxian)
3. Detailed descriptions include problem, solution, and team working.
-submit by Thursday before 9.30pm (Ain)
4. This project must have a business process flow diagram and description.
- submit by Thursday before 9.30pm(Akmal)
5. Provides low-fidelity mock-ups.
-submit by Wednesday before 11pm (Hannani)
6. Video
-submit by Saturday before 2pm
(kamilah)

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Discussion mediums: Whatsapp & Google Meet

LOW FIDELITY MOCK-UP

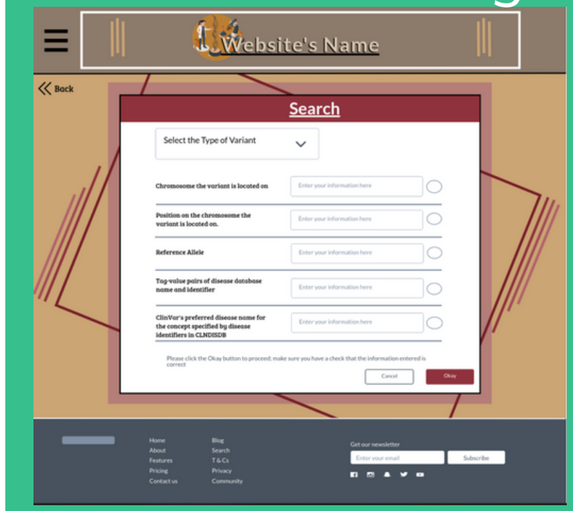
Low Fidelity Mock-Up

Continue Next slide

Welcoming Page

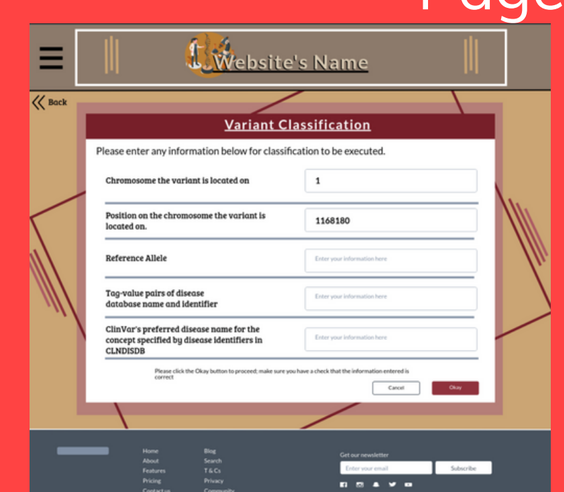
Main Page

Search Page



Report #1

Variant Classification Page



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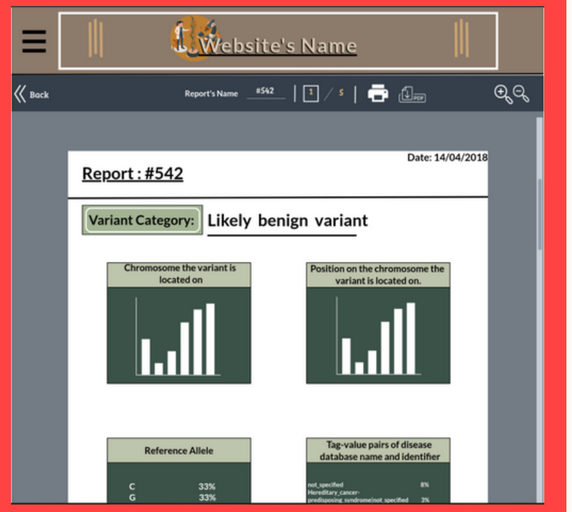
Search Result Page

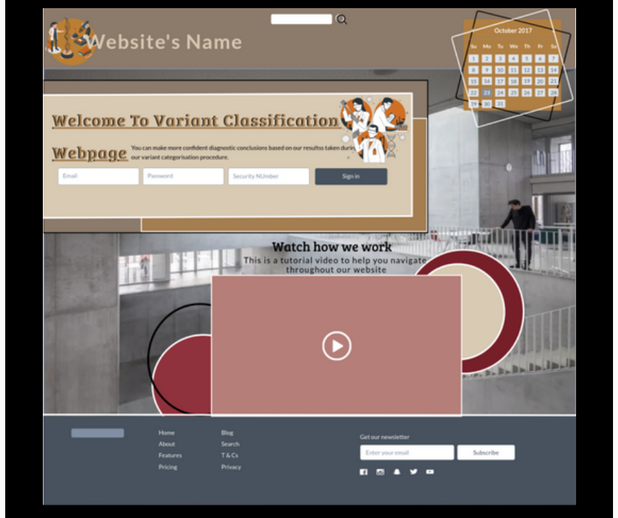
Report #2



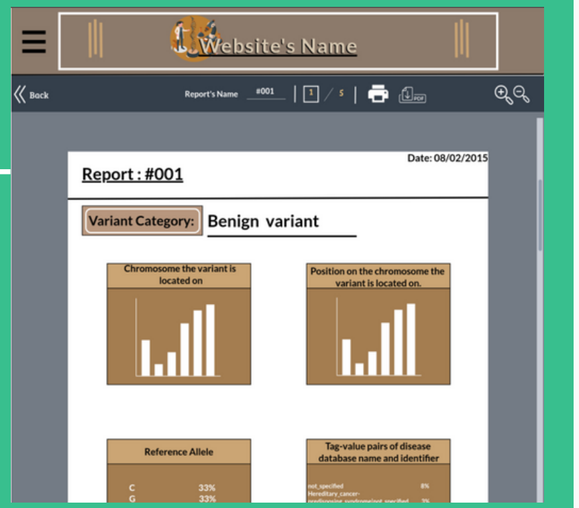
Historical Report Page

End

Sign Out Page



Report #3



Thank you!